

What is claimed is

1. An improved composition for Nitrate removal and for the treatment of waste water streams, without pH adjustment comprising: (1) a clay absorbent or absorbent-adsorbent product or organic modified clay, (2) a highly insoluble crosslinked carbohydrate polymer with branched-chain structure and having present sulfide or disulfide group, or sulfonated or sulfate group, or crosslinked starch xanthate, or starch xanthate-xanthide, or regenerated cellulose(Ground viscose), or 1,3,5-Triazine trithione trisodium salt, and (3) a material selected from the group consisting of activated carbon, anthracite or lignin, and with the proviso that at least two of the three products are present and said product is in solid form or granule or pellets.

2. A product according to claim 1 wherein the clay is selected from the group consisting of: silica Vulco hectorite clays, sodium bentonite clays, calcium bentonite, fuller's earth clays, aluminum siliceous clays and combinations thereof, or an organic modified of sodium bentonite or calcium bentonite or mixture of these, or siliceous volclay, or attapulgite clay, a hydrous silicate of aluminum generated from sodium bentonite or calcium bentonite, cross-linked montmorillonite molecular sieves, porous silicate glass, kaolin surface modified by polycyclopentadiene, tricalcium aluminate, calcium silicate hydrate (comprising by formula $\text{Ca}_6\text{Si}_6\text{O}_{17}(\text{OH})_2$) with bulk density of 85–139 g/liter, silica xerogels, high-porosity silica xerogels, crystalline metal-organic microporous materials surface, or surface altered zeolites, or clinoptilolite, zeolite Analcime and, Analcite comprising the formula $\text{Na}_2\text{O}.\text{Al}_2\text{O}_3.4\text{SiO}_2.2\text{H}_2\text{O}$).

3. The composition according to claim 1 wherein the insoluble highly crosslinked carbohydrate polymer is selected from the group consisting of: 25% amylose and 75% amilopectin having a branched- chain structure and having present sulfide or disulfide group, or sulfonated or sulfate groups, or crosslinked starch xanthate, or starch xanthate-xanthide mixture crosslinked by 2-chloro-N,N-diethylacetamide or epichlorohydrin, sodium trimetaphosphate, phosphorous oxycloride, formaldehyde, glyoxal, acrolein, and N-methylol urea, a crosslinked starch xanthate having sulfide or disulfide group present, or starch xanthate- xanthide mixed composition or blend, dithiocarbonic acid or xanthate, or 3-mercaptopropyltrimethoxysilane or 3-mercaptopropylmethyldimethoxysilane, or 1,3,5-Triazine-2,4,6-(1H,3H,5H)-trithione, trisodium salt, or regenerated cellulose (Ground Viscose) modified NaOH-Diethylaminoethyl chloride hydrochloride crosslinked with EPI (epichlorohydrin) and exchange capacity of 0.65-0.95 milliequivalents per gram, and/or Activated Carbon, or anthracite, or lignin.

4. A composition according to claim 2 wherein said organic modified clay is selected from the group consisting of Hectorite, or Bentonite, or Hectorite-Bentonite clay, or high swelling sodium bentonite Vulco clay, or mixtures, modified with methyl-dihydrogenated tallow-amine or dimethyl dihydrogenated tallow amine, M2HT or 2MHT, having quaternary ammonium motie chlorine or dichloride, or methyl sulfate or ethyl sulfate, or clay modified by quaternary ammonium compound comprising by formula of $[N(+)R_{1,2,3,4}](Cl^-)$, or protonized by organic acid, and most preferable been a clay modified with dihydrogenated-tallowamine, (2HT), quaternized or protonized, or by quaternary ammonium salts consisting of dimethyl-dihydrogenated tallow ammonium chloride, DMHT, methyl-dihydrogenated-tallowamine, or M2HT,

Variable	Mean	SD	Min	Max
Age	34.2	10.5	20	55
Gender	0.5	0.5	0	1
Marital status	0.6	0.5	0	1
Education	12.5	1.5	9	16
Income	15.2	5.8	5	30
Health status	0.8	0.4	0	1
Stress level	2.5	1.2	1	4
Life satisfaction	3.2	1.0	1	5
Work engagement	4.1	0.8	2	5
Organizational commitment	3.8	0.9	2	5
Turnover intention	1.5	0.7	0	3
Job satisfaction	3.5	1.1	1	5
Perceived organizational support	3.0	1.0	1	5
Psychological distance	2.8	1.2	1	5
Trust in supervisor	3.3	0.9	2	5
Trust in organization	3.1	1.0	2	5
Organizational identification	3.6	0.8	2	5
Organizational citizenship behavior	3.9	0.7	2	5
Counterproductive work behavior	1.2	0.6	0	3
Work-life balance	3.4	1.1	1	5
Employee well-being	3.7	0.9	2	5
Organizational justice	3.2	1.0	2	5
Employee engagement	4.0	0.8	2	5
Organizational trust	3.5	0.9	2	5
Employee loyalty	3.8	0.7	2	5
Organizational identification	3.6	0.8	2	5
Employee commitment	3.9	0.7	2	5
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Trust in organization	3.1	0.9	2	4
Organizational identification	3.6	0.7	2	4
Organizational citizenship behavior	3.9	0.6	2	4
Employee voice	3.7	0.8	2	4
Employee silence	2.2	0.7	1	3
Employee withdrawal	1.8	0.6	1	3
Employee turnover	0.5	0.5	0	1

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Employee silence	2.2	0.7	1	3
Employee withdrawal	1.8	0.6	1	3
Employee turnover	0.5	0.5	0	1

Analcime (Analcite comprising by formula $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2 \cdot 2\text{H}_2\text{O}$).

7. The composition of claim 4 wherein said organic modified clays are further mixed with a cellulose selected from the group comprising modified cellulose fibers, hydrophobic brown cellulose, natural cellulose fiber, kenaf fiber or kenaf cellulose, or high crosslinked starch xanthate, adipoguanamine, or adipoguanamine silicone surface modified cellulose or kenaf, polymethylene urea, or polymethylene urea silicone surface modified cellulose or kenaf, calcium sulfate hemihydrate and combinations thereof.

8. The composition according to claim 7 wherein said modified cellulose fiber Comprises cellulose (38%), lignin (18%), pectin (33%) and protein substances (11%), or kenaf cellulose

9. The composition according to claim 1 comprising: from 0 to to 70 parts, high swelling sodium bentonite; from 10 to 70 parts, calcium bentonite; from 0 to 70 parts, zeolite from 20 to 0 parts, insoluble carbohydrate polymer as high crosslinked yellow starch xanthate(PR-XIS 100) from 0.5 to 70 parts, insoluble carbohydrate polymer crosslinked starch xanthate alloy with sulfamic acid, or 1,3,5 triazine-trithione salt (PR-XIS 200) from 70 to 0.1 parts, and providing that atleast two of the components are positive.

10. A composition according to claim 7 which is compatible with a polyelectrolyte flocculant selected from the group comprising cationic polyelectrolytes, anionic polyelectrolyte, nonionic polyelectrolytes, and combinations thereof, and the

most preferable is an anionic polyelectrolyte.

11. A composition according to claim 9 which further comprises mixing such composition with compound selected from the group comprising activated carbon, charcoal, lignin and combinations thereof.

12. A composition according to claim 4 wherein said organic modified clay comprises one or more clays reacted with one or more amines selected from the group comprising protonized primary (C_{12} - C_{22}) alkyl amines, protonized secondary (C_{14} - C_{28}) alkyl amines, protonized secondary (C_{14} - C_{28}) alkyl diamine, protonized tertiary (C_8 - C_{30}) alkyl amine, and quaternary ammonium compounds having at least one moiety selected from the group comprising chlorine, COO^- , $(OH)CH(CHO)COO^-$, $-SO_4$, $-SO_3$, $-CH(OH)COOY$, CH_3COO^- , hydroxyalkyl $(OH)COO^-$, and $-NCH(OH)(CHO)$, Cl^- , Br^- , and mixture of these.

13. A composition according to claim 4 wherein said amine is selected from the group consisting of: methyl dihydrogenated tallow ammonium chloride, dimethyl dihydrogenated tallow ammonium chloride, dimethyl dihydrogenated dicoco ammonium chloride, dimethyl (C_{12} - C_{17}) alkyl ammonium chlorides, N, N, N, N, N-pentamethyl-N-Tallowalkyl-trimethylene-dichlorides, benzyl ammoniumorgano clays, N-Alkyl-1, 3-propane fatty diamine, ether diamine, (C_8 - C_{23}) tertiary amines, dihydrogenated tallow amine and combinations thereof.